REMARKS

Reconsideration of this application, as presently amended, is respectfully requested.

Claims 1-22 are pending in this application.. Claims 1-22 stand rejected.

Claim Rejections – 35 U.S.C. §103

Claims 1-6, 9-14 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over **Chakraborty et al.** (USP 7,110,454, previously cited) in view of **Toklu et al.**, (USP 6,549,643, previously cited). Claims 7-8 are rejected under 35 U.S.C. §103(a) as being unpatentable over **Chakraborty et al.** in view of **Toklu et al.** and in further view of **Blanchard** (USP 6,347,114, previously cited). Claims 15 and 17-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over **Chakraborty et al.** in view of **Toklu et al.** and in further view of **Park et al.**, (USP 6,597,738, previously cited). Claim 21 is rejected under 35 U.S.C §103(a) as being unpatentable over **Nakamura et al.** (US 2001/0051516) and in view of **Chakraborty et al.** in view of **Gonsalves et al.** (USP 6,392,710, previously cited). Claim 22 is rejected under 35 U.S.C. §103(a) as being unpatentable over **Nakamura et al.**, (US 2001/0051516) and in view of **Chakraborty** (USP 7,110,454) in view of **Gonsalves** (USP 6,392710) and further in view of **Gotoh et al.**, (USP 5,801,765). For the reasons set forth in detail below, these rejections are respectfully traversed.

The Examiner's Current Position

Initially, it is noted that the Examiner basically repeats the same rejections set forth in the previous Office Action (i.e., the final Office Action mailed June 5, 2008). As a result, it is

difficult to understand how the Examiner is interpreting the claims because the current Office Action does not specifically address the arguments presented in the response filed on September 5, 2008.

For example, with respect to claim 1, Applicants have repeatedly explained that **Chakraborty et al.** is directed to detecting transitions between shots to produce a shot list of segmented shots (where **Chakraborty et al.** defines a "shot" and a "scene" synonymously as a continuous recording of one or more video frames, and defines the "transition between shots" as "cuts" or "scene changes"). Thus, the end result of the teachings of **Chakraborty et al.** is a "shot list" of segmented shots.

With the above understanding of **Chakraborty et al.,** Applicants have explained to the Examiner that the various metrics taught by **Chakraborty et al.** *cannot* correspond to the claimed "calculator for calculating shot density DS of the video from the respective shots" and "calculator for calculating motion intensity of the respective shots" and "dynamic/static scene classifier for classifying the respective shots into a dynamic scene with much motions or a static scene with little motions based on the shot density and the motion intensity" *because no shot has yet been determined at the time the various metrics are used to analyze the video.*

In other words, in **Chakraborty et al.,** the various metrics are used to detect cut points (i.e., "scene changes"), which detection of cut points necessarily occurs *prior to* determining the various shots in a video. Therefore, at the time the various metrics are used in **Chakraborty et al.** to determine the cut points, *a segmented shot does not even exist* because it has not yet been determined what portions of the video constitute the various shots.

Unfortunately, in the present Office Action, the Examiner has not actually addressed the above, and other, arguments that have been presented (nor has the Examiner ever specifically addressed these arguments). The Examiner has simply reiterated the arguments from the June 5, 2008 Office Action, and has not addressed Applicants' response to these arguments. *The Examiner is respectfully requested to specifically address the arguments presented in the September 5, 2008 response.*

Claims 1, 4, 9, 13 and 14

Claims 1, 4, 9, 13 and 14 have been amended to clarify that the various types of scenes that are detected in these claims are composed of a plurality of continuous shots.

The patentability arguments set forth in the response filed on September 5, 2008 are hereby incorporated by reference in their entirety. As noted above, in contrast to the claimed invention, **Chakraborty** defines a "shot" and a "scene" as the same thing. **Chakraborty** is unrelated to classifying a scene including a plurality of continuous shots. Moreover, as argued in the response filed on September 5, 2008, **Toklu** does not alleviate any of the deficiencies of **Chakraborty.**

In contrast to the invention recited in claims 1, 4, 9, 13 and 14, the end result in **Chakraborty et al.** and **Toklu et al.** is a segmented shot. The only process that appears to be performed on the segmented shot of **Chakraborty** and **Toklu** (i.e., after the shot is segmented) is selecting a keyframe (see, e.g., col. 14, lines 52-55 of **Chakraborty**). In contrast, the claimed invention performs various processes (e.g., calculates shot density, calculates motion intensity,

classifies a dynamic/static scene) after the shot is segmented in order to classify a scene, which

scene includes a plurality of continuous shots.

In summary, Applicants submit that none of the cited references disclose or suggest any

of the features recited in claims 1, 4, 9, 13 and 14, other than the claimed "a shot segmentation

device to segment the video into respective shots," because none of the references teach or

suggest performing operations on the segmented shots or classifying a scene including a plurality

of continuous shots.

Claim 14

Claim 14 has also been amended to clarify the operation of the "commercial scene

detector". More particularly, claim 14 has been amended to recite "and classifying the scene as a

commercial scene in response to the comparing indicating that the number of shot boundaries

detected during the predetermined interval is greater than the predetermined reference number"

The Examiner asserts that col. 5, lines 22-23 and col. 14, lines 21-27 of **Chakraborty**

disclose the "commercial scene detector for detecting a commercial scene by comparing a

number of shot boundaries detected during a predetermined interval with a predetermined

reference number." Col. 14, lines 21-27 of **Chakraborty** relate to determining whether a portion

of the video, which may potentially be a "scene change," is actually a gradual scene change or

just motion by comparing the time duration of the potential scene change with a threshold level

(i.e., a reference time). If the duration of the potential scene change is *larger* than the threshold

level, then it is determined that the portion of video in question is *not* likely to be a gradual scene change and may be motion (see col. 14, lines 24-26).

In contrast to the invention as presently recited in claim 14, **Chakraborty** teaches that potential scene change is classified as a gradual scene change in response to a comparison indicating that a time duration of a potential scene change is less than a threshold level.

Claim 21

Initially, it is noted that claim 21 has been amended to clarify the dynamic and static scenes.

With respect to claim 21, the Examiner relies on the newly cited **Nakamura et al.** reference to teach all of the features of the claim except the *"inserting means for inserting a video transition effect into a combined portion of the respective highlight scenes, wherein the inserting means makes a type of the video transition effect to be inserted different according to whether the highlight scenes to be combined are the dynamic scene or the static scene."* See Office Action, page 17, lines 5-8. The Examiner apparently relies on **Chakraborty** and **Gonsalves** to teach these features.

In particular, the Examiner apparently relies on **Chakraborty** for the general teaching of inserting a transition between shots (see Office Action, page 17, lines 9-11), and relies on **Gonsalves** to teach "wherein the inserting means makes a type of the video transition effect to be inserted different according to whether the highlight scenes to be combined are the dynamic scene or the static scene." See last two paragraphs of page 17.

- 14 -

However, as was discussed in the Amendment filed on September 5, 2008, **Gonsalves** does not disclose or suggest anything about an "inserting means [that] makes a type of the video transition effect to be inserted different according to whether the highlight scenes to be combined are the dynamic scene or the static scene."

Further, the Examiner does not point out where **Gonsalves** discloses such a feature. The Examiner simply asserts "Gonsalves teaches allowing the video editor to insert a video transition effect on a field/frame-by field/frame basis in order to improve accuracy of the effect." See Office Action, last paragraph of page 17. However, this disclosure is completely unrelated to "inserting means...[that] makes a type of the video transition effect to be inserted different according to whether the highlight scenes to be combined are the dynamic scene or the static scene."

The Examiner is required to point out where each claimed feature is disclosed in the references. The Examiner has not pointed out a teaching of "inserting means...[that] makes a type of the video transition effect to be inserted different according to whether the highlight scenes to be combined are the dynamic scene or the static scene." Therefore, it is respectfully submitted that the rejection of claims 21 and 22 is simply without merit.

For all the reasons set forth above, it is submitted that independent claims 1, 4, 7, 9, 13, 14 and 21, and claims dependent therefrom, patentably distinguish over the combinations of cited prior art. Reconsideration and withdrawal of the rejections under §103 are respectfully requested.
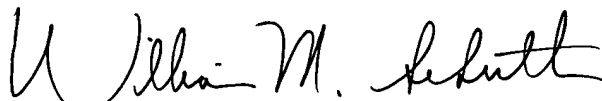
CONCLUSION

In view of the foregoing, it is submitted that all pending claims are in condition for allowance. A prompt and favorable reconsideration of the rejection and an indication of allowability of all pending claims are earnestly solicited.

If the Examiner believes that there are issues remaining to be resolved in this application, the Examiner is invited to contact the undersigned attorney at the telephone number indicated below to arrange for an interview to expedite and complete prosecution of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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